

# समाचार पत्रों से चयित अंश Newspapers Clippings

दैनिक सामयिक अभिज्ञता सेवा  
A Daily Current Awareness Service

Vol. 44 No. 202 19-21 Oct 2019



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## DRDO starts work on ‘next-gen’ hypersonic weapon

*Hypersonic weapons are specifically designed for increased survivability against modern ballistic missile defence systems. These missiles are capable of delivering conventional or nuclear payloads at speeds not imagined hitherto over long ranges.*

*By Sudhi Ranjan Sen*

The Defence Research and Development (DRDO) has started work to produce a hypersonic weapon – missiles that travel at five times speed of sound, or a little over a mile every second. A wind tunnel to test and fine tune the technology will be operational soon, senior government officials who did not want to be named said.

Defence Minister Rajnath Singh is expected to inaugurate the facility soon, they added.

“A hypersonic weapon system is one of the many niche technologies we are exploring seriously,” one of the officials said, asking not to be named.

Billed as a “next-gen” weapon system, the race to acquire hypersonic weapons technology is heating up. China, Russia, and the United States are testing hypersonic weapons of various types to enhance strategic nuclear deterrence and strengthen front-line combat units.

Existing intercontinental ballistic missile (ICBM) re-entry vehicles also travel at those superfast speeds, but the hypersonic glide vehicles now in development are far more manoeuvrable, making their tracking and interception nearly impossible.

Hypersonic weapons are specifically designed for increased survivability against modern ballistic missile defence systems. These missiles are capable of delivering conventional or nuclear payloads at speeds not imagined hitherto over long ranges.

In a bid to boost defence manufacturing in India, the DRDO is also offering 1,500 of its patents, including critical missile technology, life sciences, and naval technology, for use by Indian Industry, DRDO chairman G Satish Reddy said.

The patents can be accessed by free of cost even by start-ups and medium and small manufacturing enterprises.

Some of the patents offered for free include technologies to manufacture “man-mounted air-conditioning system”, aircraft arrester barrier system, a sliding mechanism for missile containers, lightweight high strength broadband microwave absorbing rubber, silicon-based lubricants for wide temperature range applications, low-density carbon foam, and anti-corrosive paint for application under immersed conditions, among others.

“DRDO is determined to encourage industry to develop advanced defence equipment thereby making the Make-In-India programme a success. We have today an 1,800-industry base, we are determined to enlarge this base and take the technological capability to a higher level,” Reddy said, explaining the reason behind offering patents at no cost.

Indian industry will not have pay “license fee or royalty” for any of the patented technologies, said a second senior DRDO official who did not want to be named. “DRDO won’t be just offering the technology but will also be handholding the industry and help them produce the product,” he said.

In a related development, DRDO has also tweaked its policy for “Transfer of Technology” (ToT) to the industry. No, ToT fee will be charged from the industry, DRDO Development Partners developing systems or sub-systems for military applications. And, for other industries, the ToT fee is reduced to 5% against an earlier rate of 20%. Also, no royalty is charged for supply to Indian Armed forces and other Govt departments. A nominal royalty of 2% will be charged for supply in the commercial market and for exports.

“Hypersonic weapons will become very critical in the near future. China has demonstrated that it has the technology. Others like US and Russia may already possess such weapons. It’s time that India also starts looking at these technologies,” Lieutenant General(retd) Vinod Bhatia, former Director General of Military Operations said.

<https://www.hindustantimes.com/india-news/drdo-starts-work-on-hypersonic-weapon/story-NAg6ViN9W94ll4CsfGDNYP.html>



**BHARAT SHAKTI**  
Self-Reliance in Defence

Sun, 20 Oct 2019

## Foreign Defence Attaches Conclave: India Defence Industry Transiting Rapidly to being Export Oriented

Setting the tone of the power-packed 4<sup>th</sup> Foreign Defence Attaches’ Conclave, Indian Army Chief General Bipin Rawat said, “We are manufacturing weapons not just to arm our defence forces, but we are now precisely becoming a export-oriented defence industry.”The conclave was conducted at the Constitution Club, New Delhi on 18 October by the digital platform [BharatShakti.in](http://BharatShakti.in) in association with Ministry of Defence (MOD), General Rawat added, “Our defence exports currently stand at about Rs 11,000 crore annually and is expected to grow to Rs 35,000 crore by 2024.”

Echoing the theme of the event, “Enhancing Defence Capabilities through Cooperation”, Indian Navy Chief Admiral Karambir Singh pitched for greater maritime cooperation and leveraging the collective military competence globally for facing common threats. Emphasising on foreign cooperation initiatives which include capacity building, training, exchanges and joint exercise, Admiral Singh informed the foreign defence attaches and military advisors present that, “India is hosting a large multilateral exercise MILAN 2020 at Vishakhapatnam and invited 41 countries.”



He also reiterated that, “Navy is committed to enhancing cooperation and engagement with like-minded members in the Indian Ocean Region (IOR) and our cooperation ethos is guided as articulated by the Prime Minister Modi, by the 5Ss – Samman (honour), Samvad (dialogue), Sahyog (cooperation), Shanti (peace), and Smridhi (prosperity).”

Addressing the foreign defence diplomats, DRDO Chairman Satheesh Reddy and Sanjay Jaju Joint Secretary, DIP, Ministry of Defence emphasised on the need of buying Indian defence products. Both officials were keen to push exports to meet the ambitious target of \$5 billion by 2025. The Ministry of Defence (MOD) considers exports essential for meeting the target of making India one of the world’s top five defence producers by 2025.

Sanjay Jaju recounted the government's recent policy and regulatory reforms, which had cut down licensing requirements and speeded up export clearances, enabling Indian defence manufacturers to be more competitive for international tenders. The senior bureaucrat said, "We will have to start looking at exporting weapon platforms," referring to high-value contracts for combat equipment like fighter planes, helicopters, tanks and artillery guns.



Sanjay Jaju also praised Indian defence platforms which are world-class and available at competitive costs and have already been purchased by the Indian armed forces. These platforms include the LCA Tejas, ALH Dhruv, Arjun tanks, Akash air defence system, Pinaka rocket launcher and a wide range of indigenous warships.

Explaining the government's seriousness about exports, Jajusad, "We have created a WhatsApp group for all the exporters. We have now a portal which is completely online; they send us digitally signed requests, we give them digitally signed approvals. Earlier we had a requirement of giving the end-user certificates in physical format, now we are going to tweak that. For all such purposes, they

apply for permission in the morning; by evening they get their permissions. We have reduced this time from 15 days to even a few hours."

Dr Sateesh Reddy, Chairman DRDO informed the gathering that all patents developed by the Defence Research and Development Organisation (DRDO) numbering over 1,700 are now available for use by the Indian industry. He added that the Defence Ministry has just unveiled a policy under which all technologies will be available free of cost for use by the Indian industry.



Indian defence conglomerate Kalyani Group's Chairman, Babasaheb Kalyani also talked about the Advanced Towed Artillery Gun System (ATAGS), which his company is developing in partnership with the DRDO as one of the finest artillery guns on the planet. He also reiterated that private sector companies need more orders from the defence forces.

The newly-formed Indigenous Defence Equipment Exporters Association (IDEEA) was launched by Lieutenant General V G Khandare, Military Advisor, National Security Council Secretariat (NSCS) during the inaugural session of the conclave. The event was attended by over 60 foreign military attaches and large contingents from all three services of Indian armed forces including Lt General M M Naravane, Vice Chief of Army Staff, Lt Gen S S Hasabnis, Deputy Chief of Army Staff – Planning and Systems Division, Rear Admiral Atul Anand, Assistant Chief of Naval Staff – Foreign Cooperation and Intelligence.

Delivering the valedictory address, the Vice Chief Lt Gen MM Naravane said Indian officers posted as Defence Attaches abroad, "Have been tasked to interact and advertise in host countries of the Indian equipment available."



The event witnessed participation by a galaxy of top honchos from Indian defence industry as well as the foreign OEMs including J D Patil of L & T, Ashok Atluri, Zen Technologies; Rajinder Bhatia, Bharat Forge and Kurt Knust, Lockheed Martin.

Over a dozen and half kiosks showcased the products of various public sector undertakings led by DRDO, BEL, BDL, MDL and Goa Shipyard. Prominent among the private players were Bharat Forge, Zen Technologies, Solar Group, SMPP, Salem Aeropark, Runflat Safesure, ObsEye, Shiva Texyarn, Rashtriya Metal industries. The dignitaries, including the Army and Naval Chiefs, visited these kiosks and interacted with manufacturers.

<https://bharatshakti.in/foreign-defence-attaches-conclave-india-defence-industry-transiting-rapidly-to-being-export-oriented/>



Sun, 20 Oct 2019

## **DRDO signs 30 licensing agreements on Technology Transfer**

The Summit is being held at Goa University, Taleigao, Goa between October 17-19. The Ministry in a press release said, "The DRDO develops technologies for the Armed Forces and has been carrying out ToT of these technologies to the defence industry for end use of the Armed Forces." "Indian Armed Forces are procuring ready-to-eat meals, survival ration and emergency flying ration products from companies which have acquired ToT from DRDO.

These products cater to the requirements of the Armed Forces deployed in inhospitable terrain and hostile weather conditions. These products have high nutrition value and higher shelf-life. These technologies are useful for the larger interest of the society," the press note said. "Vibrant Goa Summit provided an opportunity for the companies to interact with DRDO scientists who have developed these technologies. The event was inaugurated by the Chief Minister of Goa Pramod Sawant yesterday and was attended by senior officials from the government of Goa and DRDO," it added.

<https://www.newkerala.com/news/read/232202/drdo-signs-30-licensing-agreements-on-technology-transfer.html>

THE ECONOMIC TIMES

Sat, 19 Oct 2019

## **DRDO signs pacts on Transfer of Technology with 16 companies**

*The DRDO develops technologies for the armed forces and has been carrying out Transfer of Technology to the defence industry for end use of the forces*

The Defence Research and Development Organisation (DRDO) on Friday signed 30 licensing agreements for Transfer of Technology (ToT) with 16 Indian companies, including three start-ups, a statement said. The pacts were signed at the Vibrant Goa Global Expo and Summit 2019, which is being held at Goa University, Taleigao in Goa between October 17-19.

The DRDO develops technologies for the armed forces and has been carrying out ToT to the defence industry for end use of the forces. The armed forces procure ready-to-eat meals, survival ration and emergency flying ration products from companies which have acquired ToT from the DRDO.

These products cater to the requirements of the forces deployed in inhospitable terrain and hostile weather conditions, the statement said. They also have high nutrition value and higher shelf-life and these technologies are useful for the larger interest of the society. "Vibrant Goa Summit provided an opportunity for the companies to interact with DRDO scientists who have developed these technologies," it said.

The event was inaugurated by Goa Chief Minister Pramod Sawant on Thursday and was attended by senior officials from the state government and the DRDO.

<https://economictimes.indiatimes.com/news/defence/drdo-signs-pacts-on-transfer-of-technology-with-16-companies/articleshow/71652198.cms>

**THE TIMES OF INDIA**

*Sat, 19 Oct 2019*

## **Defence min wing inks deal to share food tech with 15 firms**

Panaji: Defence Research and Development Organisation (DRDO) inked technology transfer agreements with 15 food processing industries at the Vibrant Goa Global Expo and Summit 2019.

The agreement will see DRDO's Defence Food Research Laboratory (DFRL) share spinoff technologies that are used to prepare food for the armed forces with the industries.

Director general Life Sciences, DRDO, Dr Ajay Kumar Singh exchanged the licence agreements on technology transfer with the industries in the presence of director of DFRL Dr Anil Dutt Semwal.

"Industrial partnership is an inescapable necessity for large-scale production of technologies developed by research and development labs for utilisation of human welfare," said Singh. "Industries must make use of DRDO's technology basket for employment generation."

Singh also informed that DRDO was ready to waive the royalty for industrial production and supply of category-A technologies which are for the armed forces.

DFRL-Mysore is part of DRDO which itself reports to the ministry of defence. DFRL has developed several ready to eat foods and snacks along with packed ration for the armed forces working in different operational environments.

"Spinoff technologies developed by DFRL-DRDO which are transferred to industries will lead to safe hygienic food production in India and large-scale commercialisation," said Semwal.

DFRL-DRDO has 142 food processing technologies which are on display at the Vibrant Goa summit to create awareness and commercialisation of food technologies and also to generate employment opportunities in rural and urban India. "So far, DFRL-DRDO has transferred more than 600 technologies to industries," said Singh.

Among the 15 firms that signed agreements for transfer of technology licences, there are three startups that have tied up with DRDO for licenced production.

In 2017, DRDO had inked 29 agreements with different Goan companies to locally manufacture processed food products ranging from idli mix and snacks to packaged beverages and energy bars.

President of Vibrant Goa Summit, Rajkumar Kamat, whose company has already adopted DRDO technology, urged Goan companies to come forward to take up DRDO's spinoff technologies for civil industries.

<https://timesofindia.indiatimes.com/city/goa/defence-min-wing-inks-deal-to-share-food-tech-with-15-firms/articleshow/71657125.cms>



Sat, 19 Oct 2019

## Global companies get ready to participate in the Navy's missile programme

Though the Indian Navy is looking for around 10 SRSAM, the bid which was opened today is to meet the immediate requirements of the Indian Navy and the rest are likely to come from the Defence Research and Development Organisation (DRDO).

Several global companies including the UK's MBDA, Swedish Company 'SAAB', Rafael Advanced Defense Systems of Israel and South Korean company Samsung and Russia's Rosboronexport have responded to the Indian Navy's bid for short-range surface-to-air missile (SRSAM) systems. These are required urgently to replace the existing Barak-1 air defence systems from Israel Company which is onboard the Kamorta class corvettes of the Indian Navy.

The proposal for the SRSAM had gotten delayed as the plan earlier was to '[Make in India](#)', however the proposal that was sent out to the global vendors are under the Buy (Global) Category which allows instant buy either from local or foreign vendors.

The last date for responding to the bid by the vendors was October 17 and since these are global players the negotiations will be government to government and through the Foreign Military Sales route. The requirement is for 150 Odd missiles and is for four Kamorta class corvettes, and these are going to come with a launcher for the missiles, a command and control system and a two way data-link.

Though the Indian Navy is looking for around 10 SRSAM, the bid which was opened today is to meet the immediate requirements of the Indian Navy and the rest are likely to come from the Defence Research and Development Organisation (DRDO).

This SRSAM are expected to be used by the Indian Navy along with the with other air defence systems and others including fighters aircraft, UAVs and fast inshore attack vessels.

The MBDA Company has offered the Sea Ceptor missile through a joint venture with the L&T – L&T MBDA Missile Systems Ltd. Besides the Royal Navy, it is also in service with South American Navies including Chile and Brazil. It has a range of 25 km.

World's best combat helicopter 'Apache AH-64E' comes to India

The Rafael Advanced Defense Systems of Israel has responded through its joint venture with Kalyani Group and has offered the improved version of the Barak-1.

<https://www.financialexpress.com/defence/global-companies-get-ready-to-participate-in-the-navys-missile-programme/1739820/>

## Army wants DRDO to take in more of its personnel on deputation, give them more access

*Army officers are unhappy with DRDO's speed of development, and want more of their own personnel to work with it and make the process streamlined*

*By Snehesh Alex Philip*

New Delhi: The Army has asked the Defence Research and Development Organisation (DRDO) to take in more uniformed personnel on deputation and to give specific roles to them as it focuses on indigenous weapons and cutting down on imports.

The Army currently sends its personnel on deputation to help the DRDO with projects specified for the force, as does the Navy. While the exact number of Army personnel on DRDO deputation is not known, the Navy currently has about 40 personnel deputed there.

“We currently have some small deployment to the DRDO, but we want them to take in a higher number of personnel. Also, these personnel should be given access to the actual labs where research and design work is being carried out,” a senior Army officer told ThePrint.

The officer said the deputed personnel are often not given the access needed to ensure that the Army and the DRDO are on the same page.

Another officer made a caustic remark about the situation, saying the deputed personnel end up spending more time in the mess than in actual labs.

### **Incubation period too long**

While the armed forces are willing to look at indigenous products, sources said the DRDO's incubation period was just too long.

“The time taken by the DRDO on some products is just too much. There needs to be a shorter incubation period. Many times, the forces have demanded a certain product, and by the time it comes out, it is more or less outdated, technology-wise,” a source said.

The forces are now willing to work closely with research firms to ensure that the process can be faster and more streamlined.

An example of this was the appointment of a Major General as the chief executive officer (CEO) of the Korwa Ordnance Factory in Uttar Pradesh's Amethi district, which will manufacture AK-203 assault rifles for the military under an Indo-Russian joint venture. The experiment has been conducted to see if things can improve if armed forces personnel take charge of their key projects.

### **DRDO's view**

Asked about the situation, DRDO sources said there are about 100 uniformed personnel on deputation, and the organisation has no issue in inducting more. Sources also denied the charge of limited access, saying the services and the DRDO are “on board” on all projects.

A source said uniformed personnel have been an integral part of DRDO, and a serving Major General is actually the director of an important lab, adding that uniformed personnel are given responsibility as per suitability.

### **Push to cut down imports**

The three services are trying to cut down imports to follow the Narendra Modi government's ‘Make in India’ push.



Speaking at a DRDO seminar this week, Army chief Gen. Bipin Rawat had pitched for greater inclusion of indigenous technology in the armed forces, and asserted that India would fight and win the next war with home-grown solutions.

Rawat and Navy chief Admiral Karambir Singh attended the launch of the Indigenous Defence Equipment Exporters Association in New Delhi Friday. Rawat said numerous initiatives had been taken over the past several years to indigenise the defence sector. "We remain committed to the ethos of indigenisation," he said.

<https://theprint.in/defence/army-wants-drdo-take-more-personnel-on-deputation-give-them-more-access/307788/>



Sat, 19 Oct 2019

## **Rs 35,000 crore defence exports target in next 5 years**

*Army Chief General Bipin Rawat said on Friday that by 2024, the defence exports are likely to be at around Rs 35,000 crore increasing from the current Rs 11,000 crore a year.*

*By Abhishek Bhalla*

India is looking at a three-fold jump in its defence exports over the next five years according to estimates made by the Ministry of Defence (MoD).

Army Chief General Bipin Rawat said on Friday that by 2024, the defence exports are likely to be at around Rs 35,000 crore increasing from the current Rs 11,000 crore a year.

The defence forces are pitching for a robust domestic defence industry to ensure self-reliance and enhance defence exports.

**"We are looking towards the defence industry to meet the needs of the defence forces. There are several schemes in place to energise their defence sector,"** General Bipin Rawat said at event where defence industry representatives and defence attaches of various countries were present in the New Delhi.

In an effort to boost defence exports and give a push to domestic defence industry, the Army has tasked its defence attaches in Indian missions to promote the Indian defence industry.

General Bipin Rawat also said there are attempts being made to make the procedure for procurement less bureaucratic but at the same time ensure transparency.

Army Vice-Chief Lt Gen MM Naravne also said that there is a big endeavour that whatever procurements are made the money stays within India.

**"Whatever you produce we will take it. Unless we take it and use it how will we know the quality,"** he said.

To give a boost to domestic defence industry Defence Research and Development Organisation (DRDO) has signed 30 licensing agreements for Transfer of Technology (ToT) with 16 Indian companies, including three start-ups, at the Vibrant Goa Global Expo and Summit 2019, which is being held at Goa University, Taleigao, Goa between October 17-19, 2019.

<https://www.indiatoday.in/india/story/defence-exports-target-crore-five-years-army-drdo-general-bipin-rawat-1610863-2019-10-18>

Sat, 19 Oct 2019

## **‘India not prepared for cyber challenges’**

*By Akhil Kadidal*

Bangaluru: As the pace of digitisation in India has grown by 90% since 2014, the country’s vulnerability to cyberattacks has increased exponentially, according to experts in the government.

Sudhir Kamath, director general of the Defence Research and Development Organisation (DRDO), specified that cyberattacks can be considered as the fifth dimension of war, and warned that new technologies are adding more challenges to cybersecurity today heightened by AI, big data, machine learning and quantum technologies.

He was speaking at a three-day conference on the future of security and warfare organised by the Bengaluru-based think-tank Synergia.

Other cybersecurity experts at the conference brought this statement into perspective by pointing out India is the third greatest recipient of cyberattacks in the world. The scale of the problem is enough to hamper India’s growth, explained Lt General Rajesh Pant, the National Cyber Security Coordinator of India.

“Growing to a \$5 trillion economy, as our prime minister wants, translates to a growth rate of 8-9%. But if we are hit by cybercrimes, attaining that goal will become difficult,” Pant said, adding that India is staring at losses of Rs 2 lakh crore through cyberattacks.

Speaking to DH, Dr Kamath specified that DRDO was involved in the creation of hardware and software solutions to combat the increasing scale of cyberattacks but would not disclose particulars, citing the classified nature of these projects.

What Dr Kamath did elucidate about was that Indian society was completely unprepared or unaware of the scale of attacks being perpetrated against from foreign state actors and private entities.

One example of this was the Face App, developed by the Russian Company Wireless Lab, which prompts users to upload photos of themselves which are then used by an AI system to generate images showing them looking older or in another gender. However, concerns over data leaks from the company have triggered fears that the images are being for nefarious purposes in Russia.

“This is what people don’t realise — that the app that they download onto their phones might be sending their data to parties which could use them for illicit purposes,” Dr Kamath said.

Lt General Pant suggested that taking the message of cybersecurity vigilance to schools could help build the better-informed society of tomorrow.

He also suggested a sustained public interest campaign, similar to anti-tobacco films which run in theatres, to impress upon the public the gravity of the situation.

<https://www.deccanherald.com/city/life-in-bengaluru/india-not-prepared-for-cyber-challenges-769548.html>

## **Make-in-India in Defence sector will help realise PM's \$5 trillion economy dream**

*The 'Indian Defence and Aerospace Summit 2019' provided the perfect platform for Indian defence and global diplomatic sectors' top names to interact on various issues as important as defence and aerospace*

*By Abhinandan Mishra, Dibyendu Mondal, Navtan Kumar, Pratyush Deep Kotoky, Rakesh Ranjan and Utpal Kumar*

New Delhi: Defence Minister Rajnath Singh and the Chiefs of the three Armed Forces have a road map ready to realise Prime Minister Narendra Modi's vision to make India a \$5 trillion economy by 2024 and that can be made possible by "Make-in-India" in the defence sector.

The "Indian Defence and Aerospace Summit 2019" organised by NewsX and *The Sunday Guardian* (iTV Network) at The Lalit hotel in the national capital on Saturday, provided the perfect platform for Indian defence and global diplomatic sector's top names to interact on various issues related to defence and aerospace, including opportunities and challenges. The summit saw the presence of luminaries like Defence Minister Rajnath Singh (through video conferencing), Army Chief Bipin Rawat, Chief of the Naval Staff Admiral Karambir Singh, Chief of Air Staff Air Chief Marshal R.K.S. Bhadauria, besides several diplomats and top Army and government officials.

Welcoming the guests at the summit, Kartikeya Sharma, Founder and Promoter of iTV Network, said that he was delighted to be part of a platform that brought together key players in the field from across the globe to deliberate on issues as important as defence and aerospace.

Rajnath Singh, Minister of Defence, thanked the iTV Network and said that such platforms help propel both the industry and the government towards planning and policy implementation.

Speaking about the paramount importance of both internal and external security of a country, Singh said, "Security of any country is of prime importance for the development of the nation. If the borders of the countries are not secured, if there is no internal peace, then the dream of development would be a far-fetched one." Singh emphasised on promoting domestic industries in the Defence sector. He said that the Defence sector will play a key role in achieving the target of a \$5 trillion economy by 2024.

The Union Defence Minister also said that the domestic Defence industry will be built in the country and the government is working on it. He said that the BJP-led government at the Centre is all set to take the initiative of making India a global superpower in terms of Defence.

"In this regard, the government has already set up two defence industrial corridors—one in Tamil Nadu and the other in Uttar Pradesh. This is being set up to build state-of-the-art infrastructure in terms of defence infrastructure—both from the support of the government as well as the industry."

He further said that the country's Air Force has been strengthened with the involvement of Tejas and Rafale.

In 2018-19, the Defence sector produced Rs 80,000 crore. "We want to reach Rs one lakh crore in defence production by next year and this will be a significant contribution towards the \$5 trillion dollar economy target," Singh said.

### **Army Chief Pitches for 'Make in India' in Defence**

Army Chief General Bipin Rawat set the tone of the summit by pitching for "Make in India" initiatives in the field of Indian Defence production.

“The Indian Army has witnessed the power shift and that is why it is giving utmost importance to a public-private partnership for developing indigenous defence products. In this regard, the Indian Army wants to utilise the strength and capabilities of start-ups in indigenous defence projects,” Rawat said.

He further added that the “Make in India” initiative is helping minimise defence expenditure by a huge margin. Without going into details, he said a specific product, that used to cost around Rs 80 lakh, was manufactured in the country using home-grown technology at the expense of only Rs 30 lakh.

“The Indian Army through the ‘Make in India’ initiative have also allowed *suo moto* proposals to come from the industry to the armed forces and 11 of such proposals have already reached us,” General Rawat said.

He further added that bureaucratic red tapism is being looked at to give quicker clearances to industry looking forward to work in defence production and to promote home grown technologies, a Rs 100 crore technological development fund for defence production has been given a go-ahead.

“We are hugely optimistic and if I may say so, we will fight and win the next war with homegrown technology and equipment,” General Rawat said.

### **Navy, Air Force Chiefs for Greater Industry Participation in Defence Manufacturing**

The Chiefs of the Indian Navy and the Indian Air Force advocated for greater participation of the Indian defence manufacturing industry with the government. Speaking at the summit, Indian Navy Chief Admiral Karambir Singh and IAF Chief Air Chief Marshal R.K.S. Bhadauria said utilising the strength of the MSME sector and new start-ups would prove crucial in stepping up the rate of production apart from cutting down on the cost and time, which was also emphasised by General Bipin Rawat.

Addressing the concluding session of the day-long event, Air Chief Marshal Bhadauria said the IAF faced the biggest challenge of sustaining the existing fleet of aircraft. While the Indian aerospace industry was already occupied with production of SU30s, Jaguars and Mirage 2000s, it is largely taken up by the Hindustan Aeronautics Limited (HAL) and this is where the private players need to step in. “The biggest challenge for private players in the Indian aerospace sector is stepping into the HAL. This is one thing that needs to be resolved quickly,” he said. “The involvement of the private players is important in order to increase the rate of production and cutting down the cost and time while ensuring the quality of the product. Failing this, the whole effort of the government and the Indian Air Force behind energising the aerospace industry will go waste,” the Air Force chief said.

Air Chief Marshal Bhadauria, however, maintained that development of engines for the aircraft was the biggest challenge before the industry even as the dependence on DRDO for weapons had begun to reduce in the last couple of years.

Indian Navy chief Admiral Karambir Singh also exhorted the industry to collaborate with the Indian Navy in the area of warship building which, he said, had the greatest potential in terms of private partnership. He said warship construction required 6.5 times greater workforce as compared to building commercial ships and hence this segment offered great opportunity for the industry.

Another area where the Navy chief sought private partnership was the maintenance of repair of warships that have the lifespan of at least 30 years which goes up to 50 years in case of an aircraft carrier. “According to estimates, 90% of ship repairs in India are done by the Indian vendors. India has a great potential of becoming the regional ship repair hub,” Admiral Singh said.

The two chiefs also emphasised on indigenisation of key components and developing niche capability and technology in the Defence sector. Admiral Singh said unmanned solutions like robotics would play a crucial role in the future warfare. “The private players must learn to convert commercial solutions into military products and this is how the defence sector can contribute to the government’s dream of becoming the \$5 trillion economy,” he said.

## **Learnt a Lot from Indian Armed Forces: Fraser**

Admiral Tim Fraser, UK's Vice Chief of the Defence Staff, spoke about modernisation of the armed forces and bilateral cooperation between the Indian and the British armed forces.

“Working with the Indian armed forces closely during the United Nation’s peace keeping mission in South Sudan, we have worked closely in many aspects and have learnt a lot from them and we can take this experience forward in all our future cooperation,” Admiral Tim Fraser said.

He further said that with the changing times, the armed forces also needs to change and that armed forces will need to collaborate with the industry to enable more intelligence and advanced technology and modernisation.

“We need to collaborate with enterprises from outside the Defence segment who could have more advanced or modernised technology and this way, the industry can contribute towards the development of the armed forces,” Fraser said.

Interacting in a round table conference, India’s Army chief General Bipin Rawat and Admiral Tim Fraser, the UK’s Vice Chief of Defence Staff spoke on different topics, including defence cooperation between India and the UK. Rawat said India should be given a larger role in global decision-making.

“India should be given a bigger role in making decisions at the global level. The time has now come to make decisions. India is one of the largest contributors to UN peace keeping and we have always participated as and when we have been asked to,” he said.

Commenting on terrorism, Fraser said that there was no common solution to how to combat terrorism as every nation has its own definition of terrorism. “What all nations must come and do is to participate in information and intelligence sharing at both bilateral and multi-lateral level as it will act a key aspect to deter terrorism,” he said.

Agreeing with Tim Fraser, General Rawat said that sharing of information and intelligence is necessary at the international level. “The scope of bilateral and multilateral cooperation between India and UK has a lot of scope,” he said.

On the issue of bilateral cooperation between India and UK, General Rawat said, “India inherited the UK’s system of armed forces. The UK has moved forward. It is time for us to move in that direction and as rightly done by the UK, we need a joint structure which the UK already has in place,” he said.

Rawat said that India needs to learn the new non-contact technological warfare from the UK. “The UK has recently acquired new technological advancements in cyber warfare and there is scope for a bilateral cooperation. We should develop strategic partnership in defence cooperation,” he said. He added that India and UK can also share technology related to Air Force and Navy.

### **‘Need to Focus on R&D in Defence Sector’**

Speaking at a panel discussion on modernization and development opportunities in defence production, Lieutenant General (retired) Subrata Saha, while moderating on the topic, said the government needs to focus more on research and development in the defence sector as only 0.09% of the total GDP of India is contributed to this field whereas the US spends 0.41 of its GDP on the same.

“The government needs to do a detailed mapping of the defence sector and focus more on Indigenously Designed, Developed and Manufactured products. It also needs to develop strategic partnership and provide financial autonomy to the three service headquarters,” he said.

Lieutenant General S.S. Hasabnis said that the demands of the armed forces should be duly advertised in the open market and internet so that new people can approach us and show their interest in defence production as this way even foreign players would be able to approach us with the most advanced technology.

Vice Chief of the Naval Staff (VCNS) G. Ashok Kumar said that indigenous defence production should be the key goal of the armed forces. “Today we have 130 ships that are made in India and absolutely indigenously developed and as we speak, 48 more are in making, of which four are



submarines. There is a huge scope for start ups in the defence sector as ship building involves a huge technological system and startups can help us in this,” he said.

“The Indian Navy is the first to get indigenous surveillance system, guns and as well as radar system manufactured in India,” he said.

Speaking on how the Air Force can achieve its true potential, Air Marshal Sandeep Singh said that the Indian defence industry cannot start, sustain and thrive without an internal demand. “We are fully committed to it (making demand for manufacturers). In times to come, we would also be enhancing our exports. In the last 5-6 years, we have made the Make in India process simpler; it is going to become more friendly for small-scale industries in the coming days. The airspace industry players need to be ready to take some risk as it requires capital and the gestation process is long. Our security scenario is changing very fast so that the timeliness of what we want is important, the industry players need to keep time line in mind,” he said.

### **France Ready to Contribute to Modernising Indian Forces: Lenain**

Addressing the session on “Indo-French Strategic Partnership”, French Ambassador A.M.B. Emmanuel Lenain said his country is ready to contribute to modernising the Indian forces. “You are well aware of France’s longstanding adherence to “Make in India” as a policy. It is an effort that we will continue to amplify and our proposals, particularly for armaments, will always bear this mark. As such, France is ready to contribute to India’s priority of modernising its forces.”

“More generally, we are very keen on expanding our partnership in research and innovation. How we tackle the technological challenges today will decide how tomorrow’s world will shape up. This is even truer with the digital transformation our societies have embarked on. The partnership for critical digital infrastructure between ATOS and the Centre for Development of Advanced Computing is an example to emulate,” he said and called for “pooling of our expertise to provide state-of-the-art technology for tomorrow”.

“It is often easier, and more reassuring, to simply react. However, we will effectively promote our vision only if we take initiatives, if we proactively propose solutions, if we work to secure a compromise when necessary. France believes in being bold. As evidenced by President Macron’s invitation to India to the G7 Summit in Biarritz, last August, France wishes to be the partner of the emerging global India,” the French Ambassador pointed out.

### **Russian Envoy Reminds Time-Tested Indo-Russian Friendship**

In his address, the Deputy Chief Mission of Russian Embassy Roman Babushkin said the special and privileged strategic partnership between India and Russia is a testimony of the advanced level of bilateral relations. “It is unique, confiding and mutually beneficial by nature, encompassing all possible areas of cooperation. This relationship is based on similar civilisational values, time-tested friendship, mutual understanding, trust, common interests and proximity of approaches to the fundamental issues of development and economic progress,” he said.

He said India-Russia ties have successfully coped with the turbulent realities of the contemporary world. “They have never been and will not be susceptible to outside influence. Development of the entire gamut of India-Russia relations is a foreign policy priority for both the countries,” he said, adding “that explains why our leaders, who also enjoy strong personal chemistry, meet each other several times per year – for annual bilateral summits as well as on the sidelines of major international events such as G20, BRICS, SCO, EAS etc”.

Talking about future opportunities, Babushkin said: “Next year, we expect many high-level opportunities to further expand our cooperation. In 2020, Russia will host more than 120 events during the Russian presidency in BRICS and numerous meetings as the chair-country in the SCO. Along with traditional annual bilateral summit with India, we are looking forward to welcoming PM Modi to attend the celebrations on 9 May (next year) in Moscow’s Red Square dedicated to the 75th

anniversary of the victory in the Great Patriotic War with fascist Germany, which was the major contribution to the end of the World War II.”

### **‘India Needs to Unshackle the Hold of Bureaucracy’**

The message coming out of the roundtable session, “India’s Strategic Partnerships and Defence Acquisition”, at the Indian Defence & Aerospace Summit was that the Modi government’s “Make-in-India” move is a step in the right direction, but for the Defence sector to flourish, India has to unshackle the hold of its bureaucracy and further push the ease of doing business in the country. The session, moderated by Ashish Singh, Editor-Strategic Affairs at NewsX, was attended by Brig Gavin Thompson from the UK, Col Ludovic Dumont from France, Capt Daniel Fillion from the US, Col Assaf Mahler from Israel, and Capt Simon Bateman from Australia.

“Businessmen will go where they would find easy to do business. India, for that matter, has certain clear advantages over others. Foremost being easy access to cheap labour in India,” said Brig Thompson, adding that ease of doing business would help. “Ease of doing business in India isn’t very good despite considerable improvements shown by the country in the last few years.” Col Dumont agreed as he said, “Ease of doing business is the key.” Capt Bateman, however, believed that the change would happen with time. “India has to be patient. It is reforming and it’s very important. But the process would take a long time, just like turning a ship,” he said with a smile.

On India being the second largest arms importer, the esteemed panelists believed that India needed to have “strategic patience” and “is doing the right thing”. “No country is completely self-reliant in the defence sector. You can’t make everything yourself,” said Capt Fillion.

According to Col Mahler, this is the era of partnership, especially in the defence sector. He, however, added that there “is no one single solution to strategic partnerships. It’s a process that takes time... It may have an organised structure but the process also needs to be flexible to decide on a case-to-case basis.”

Capt Fillion said that two-way business is already in currency and would further increase. “We have to make it three-way or even multi-way. American industry is very much interested in doing business in India.” He then said something that gladdened the audience to no end. “We want India to succeed and modernise. After all, we share common interests and even values.”

On the important issue of the Modi government’s decision to create the Chief of Defence Staff (CDS), the panelists thought it was a “good move” but India needed to be pragmatic and patient. “Yes, it’s a good move but India must be patient. It must give 5-10 years to get things in place. The forces of resistance and status quo will have to be tackled effectively,” observed Brig Thompson. Capt Fillion concurred when he said, “India is ready but it has to have a realistic time-frame. It’s a two-generational plan. We must understand that it’s not just about army, navy and air force, but also about the bureaucracy that needs to be handled.”

### **Defence Can be a Potential Avenue for Economic Growth: Naravane**

Stating that defence can be a potential avenue for economic growth of country, Lt Gen M.M. Naravane, Vice-Chief of Indian Army said that towards a \$ 5 trillion economy, we need transformation such as attitudinal change and economic activity. He also stressed the need for strong defensive posture, reforms of the defence industrial base, leverage potential of “Make in India” initiative, impetus to Defence Industrial Corridors and to incorporate scope of exports.

Speaking on “Make in India”, he said that we need to focus on integration of initiatives, harmonise efforts, match global standards and set goals to achieve financial turnover. He also said that Indian Army is committed to the indigenization and welcomed any suggestion to make the whole process of involving industries in defense manufacturing faster.

DG DRDO, Dr S. Guruprasad spoke about DRDO technology clusters such as Naval systems & materials, micro-electronic devices and computational systems, life sciences, electronic and communication system, missile and strategic systems, armament and combat engineering systems and

aeronautical systems. Talking about stakeholders, he discussed how DRDO is working with different stakeholders such as forces (users), Ministry of Defence, academia, think tanks and various private industries. He also highlighted milestone achievements of DRDO which include fighter jets, war tanks and missiles. He also said how the indigenous production of these technologies has been challenging for India under very planned technology denial.

DG K. Natarajan, Indian Coast Guard Chief, started with how Indian Coast Guard have been promoting indigenous industry since 1987 when ICG inducted first indigenous Dornier. He also stated how ICG is increasing its exponential efforts and said ICG is now world's 4th largest Coast Guard. Talking about Make in India, he started with ancient India when, according to many historians, India was known for its expertise in building industry.

He also discussed ICG's projects with the Indian shipyards such as interceptor boats build by ABG shipyard, L&T shipbuilding, Bharti Defence Ltd; special role Vessals built by ABG shipyard; off-shore patrol vessels built by L&T shipbuilding; 14 FPV & training ship under construction by Reliance Naval and Engineering Ltd.

Talking about the advantages of "Make in India", he said that it will help in maintaining operational preparedness, will keep economy in procurement, will help in better post contract management and upgradation of equipment and systems. However, he also highlighted the gaps in indigenization and expectation of ICG from industry in his talk.

#### **'Export Important for Vibrant Defence Industry'**

Ashok Kumar, Defence Secretary said that for a vibrant defence industry, looking at domestic demand is not enough. He said that export is an important component of a vibrant defence industry. According to Kumar, Indian defence exports are in application in at least dozens of countries. He also said that India is increasing the line of credit to promote domestic product overseas.

He also said that it is heartening to see start-ups in the Defence industry and praised their work in this field. He also said that participation of a large numbers of start-ups is a good sign. He said that though DRDO is a front-ranking organisation in developing technology, the Ministry of Defence is also looking at the industry in this regard.

Kumar also said that today, the industry is coming to take up more challenging tasks without any assistance from the government. Thus, the relationship between the two which was earlier that of a buyer and supplier has now changed to collaborator and partner. He also said that now the industry can approach forces with their proposals and forces can take their call on it. For Kumar, this is very relevant, especially in new technology areas. He said that innovations of industry must be integrated to relevant platforms and defence PSUs have an important role to play in this regard. He concluded by saying that it is at a crucial time that the partnership between the industry and DRDO is unfolding.

#### **India-Israel Partnership based on Values**

The Ambassador of Israel to India, Dr Ron Malka, said the "natural allies"—India and Israel—must come together to fight bigger challenges like food and water scarcity and cyber attack for larger global peace and harmony. Speaking at the summit, Malka said India and Israel have the potential of developing niche technology and innovations to get rid of water and food scarcity apart from countering the common threat of terrorism.

Citing a personal experience from the water scarcity in the entire Middle East nearly 40 years ago, Malka said Israel has been successful in new innovations to achieve water security and now it is in a position to meet the water requirements of neighbouring countries. He said that the India-Israel partnership was based on the values and the vision the two countries share with each other.

*(With inputs from Abhinandan Mishra, Dibyendu Mondal, Navtan Kumar, Pratyush Deep Kotoky, Rakesh Ranjan and Utpal Kumar)*

<https://www.sundayguardianlive.com/news/make-india-defence-sector-will-help-realise-pms-5-trillion-economy-dream>

## Parliamentary panel to examine accidents involving defence assets, assess defence procurement policy

*The Parliamentary Standing Committee on Defence has selected a number of subjects for examination, which include reviewing the selection procedure of officers in the armed forces, according to the Lok Sabha secretariat's bulletin*

New Delhi: A parliamentary panel headed by former Union minister Jai Oram will critically examine the cases of accidents involving defence assets and also assess the defence procurement policy. The Parliamentary Standing Committee on Defence has selected a number of subjects for examination, which include reviewing the selection procedure of officers in the armed forces, according to the Lok Sabha secretariat's bulletin.

"Accidents involving defence assets - a critical review, an assessment of defence procurement policy" are also among the subjects selected by the panel for examination, the bulletin said.

The committee had, in its report tabled in Parliament last year, said accidents had become a continuous feature in the Navy.

The Indian Navy witnessed 62 accidents between 2007 and 2017, and 177 officers were found guilty during inquiries ordered into such incidents, according to the report.

Similarly, according to government data, 44 aircraft and helicopters -- 26 fighter jets, six helicopters, nine trainer aircraft and three transport planes -- of the Indian Air Force were lost in crashes since 2014-15, in which 46 personnel were killed.

The details of the crashes were provided in the Lok Sabha by Minister of State for Defence Shripad Naik, while replying to a question.

<https://economictimes.indiatimes.com/news/defence/parliamentary-panel-to-examine-accidents-involving-defence-assets-assess-defence-procurement-policy/articleshow/71675182.cms>

## Business Standard

### 40,000 indigenous bulletproof jackets supplied to Indian Army

The Indian Army has been supplied 40,000 indigenous bulletproof jackets for its troops carrying out anti-terror operations in the Kashmir valley.

"We are hopeful that we will deliver the order of bulletproof jackets for the Army well ahead of time," said Major-General Anil Oberoi (Retd) of SMPP Pvt Ltd, which has developed these indigenous bulletproof jackets.

"In the first year, we were supposed to supply 36,000 jackets but we are ahead of time and we have supplied 40,000 jackets to Indian Army," he said talking to ANI here on Friday. "We have to complete this order by 2021, but we are hopeful to complete it by the end of 2020," he said.

Last year, the Ministry of Defence had awarded the contract to provide more than 1.8 lakh bulletproof jackets to the indigenous manufacturer SMPP Limited.

The jackets are being supplied to the Central Ordnance Depot in Kanpur from where they will be sent to Jammu and Kashmir and other violence-affected areas.

Oberoi claimed that the bulletproof jackets can withstand hardcore steel ammunition fired from an AK-47 rifle. "Our jackets are so strong that they can take on the most dangerous ammunition from AK-47. It is known as the hard steel core ammunition which has got great penetrative power. Our jacket can absorb its impact," he said.

"We have also produced helmets that can protect soldiers against AK-47 hard steel core ammunition. It will also have a facial visor. We will save the life of our soldier from head to toe," Oberoi said. Oberoi informed that the company's helmets were already in use various armed forces in India namely the Central Reserve Police Force.

*(This story has not been edited by Business Standard staff and is auto-generated from a syndicated feed.)*

[https://www.business-standard.com/article/news-ani/40-000-indigenous-bulletproof-jackets-supplied-to-indian-army-119101900039\\_1.html](https://www.business-standard.com/article/news-ani/40-000-indigenous-bulletproof-jackets-supplied-to-indian-army-119101900039_1.html)



*Mon, 21 Oct 2019*

## **Home Ministry draws up proposal for Marine Police Force, to be sent for cabinet approval next month**

*The Central Marine Police Force will be responsible for safeguarding India's vast coastline of 7,516 km spanning 13 states, 1197 islands and a couple of union territories*

*By Arijit Saha*

In a bid to provide a boost to India's coastline security, the Ministry of Home Affairs has charted a plan to form a new armed force - Central Marine Police Force - and will send the final proposal to the cabinet next month for approval, a source in the MHA said.

"Unlike other central armed police forces, the Central Marine Police Force will have its own cadre, rules, manual, Act, infrastructure and would be headed by a Director-General rank officer," IANS quoted a senior ministry official as saying.

The Central Marine Police Force will be responsible for safeguarding India's vast coastline of 7,516 km spanning 13 states, 1197 islands and a couple of Union territories.

According to media reports, when Rajiv Gauba was the Home Secretary, he pushed to expedite the process of constituting the force and had raised the matter at many internal security meetings.

The proposal to draw up the Marine Force was made in 2016, however, the recent threats to the Indian coastline by Pakistan-based terrorist groups prompted the Intelligence agencies to force the Home ministry to speed up the process.

A coastal security phase is already in place since its implementation in 2005 under which 200 coastal police stations are operational . 204 boats, 30 jetties, 284 four-wheelers, 554 two-A wheelers, 97 check-posts, 58 out-posts, and 30 barracks have been allotted to protect the Indian coastline.

Currently, A three-tier coastal security ring comprising of State Coastal Police, Indian Coast Guard (ICG) and Indian Navy are responsible to defend India's coastline.

<https://www.dnaindia.com/india/report-home-ministry-draws-up-proposal-for-marine-police-force-to-be-sent-for-cabinet-approval-next-month-2797790>



Mon, 21 Oct 2019

## Two-day long manoeuvres by Sudarshan Chakra Vahini of Indian Army begins at Jaisalmer

Two-day long manoeuvres by Sudarshan Chakra Vahini of Indian Army started today at Jaisalmer field firing range in Rajasthan. In this war exercise, the army is going to exhibit its strength regarding Agni Missile and artillery.

Artillery, Arms and mechanized forces, Army air defence and helicopters of army aviation are participating in this exercise to test mutual coordination. Endogenously manufactured light helicopter Rudra and self-propelled artillery gun system K-9 vajra are also taking part in this exercise.

<http://www.newsonair.com/News?title=Two-day-long-manoevres-by-Sudarshan-Chakra-Vahini-of-Indian-Army-begins-at-Jaisalmer&id=373224>

**THE TIMES OF INDIA**

Sun, 20 Oct 2019

## Indian Navy to conduct major exercise on west coast

New Delhi: In a bid to test its operational preparedness and try out new strategies of naval operations, the Indian Navy is preparing for an exercise in the Arabian Sea in which assets of the Mumbai-based Western Naval Command would be employed.

"With the withdrawal of the monsoon and improved sea conditions, this is the right time to test our operational preparedness, validate procedures and try out new strategies and concepts of naval operations", a naval spokesperson said in a statement on Sunday.

Live firing drills, helicopter operations from ships, operational logistics and communication standard operating procedures (SOP) are some of the areas that will form the core of these planned exercises in order to hone the operational skills, testing of training efficacy and validate existing seamanship practices and procedures.

"It is customary for the Navy to gear up for exercises and deployments immediately following the monsoon season, taking advantage of improved conditions at sea. This is the ideal time to fine-tune our deployment concepts, test communication plans, exercise contingencies at sea and validate our inputs towards better maritime domain awareness", the spokesperson said.

The Indian Navy has been a key presence in the Arabian Sea following its prolonged anti-piracy deployments in the Gulf of Aden and Op Sankalp off the Gulf of Oman.

The Western Naval Command also recently concluded an offshore security and contingency exercise code-named 'Prasthan' on October 17.

Defence Minister Rajnath Singh had also embarked the Western Fleet last month and the Navy had exercised carrier-based evolutions and fighter operations during the event. (ANI)

<https://timesofindia.indiatimes.com/india/indian-navy-to-conduct-major-exercise-on-west-coast/articleshow/71673065.cms>



## Bengaluru will be backbone for Gripen: Saab

Bangaluru: The Swedish defence major Saab on Thursday said Bengaluru would be the backbone for the Gripen, a light single-engine multi-role fighter aircraft offered to the Indian Air Force.

Saab India Technologies chairman and managing director Ola Rignell, at a media conference, said, "I would like to emphasise that we foresee Bengaluru to be the backbone for the Gripen offering to the IAF because of the industry setup (ecosystem) that they have in Bengaluru. What we have seen so far is that here in India, there are a lot of companies who are competitive, that we can utilise in the fighter programme for India.

Saab is in the fray for a contract to supply 114 fighter planes to India under the multi-role fighter aircraft (MRFA) programme. The IAF in April 2018 issued an initial tender or Request for Information (RFI) for the billion dollar procurement deal.

The defence firm had earlier said it would hold meetings with Indian companies in October to develop ecosystem in the country for manufacturing multi-role fighter aircraft. In the last 10 days, the company had discussions with a dozen firms based in Bengaluru.

Without disclosing the names of the companies, Mr Rignell said these agreements would be similar to the deals announced earlier with Sansera Engineering, Aequs and Dynamatic Technologies.

Commenting on SAAB's offer to IAF, he said, "The current RFI from the IAF stipulates 114 aircraft. Of these, 18 are supposed to be in a flyaway condition from OEMs and the rest to be built in India. We are 100% committed to build all 96 aircraft in India, from scratch."

<https://www.thehindu.com/news/national/karnataka/bengaluru-will-be-backbone-for-gripen-saab/article29729627.ece>

## UK looks to ramp up maritime security tie-up with India

*By Rajat Pandit*

New Delhi: The United Kingdom now wants to seriously crank up maritime security cooperation with India in the Indo-Pacific, with special focus on the Indian Ocean Region (IOR), even as it has offered help to New Delhi in building new-generation 65,000-tonne aircraft carriers.

"The security challenges and threats in the IOR and elsewhere are undermining the rules-based international system. We are challenged on multiple fronts and need a strategic, multilateral response. The scale, scope and interconnectedness of our global interests mean no single nation can tackle these challenges alone," said British Vice Chief of Defence Staff, Admiral Tim Fraser, while talking to TOI.

With India and the UK already engaged in an intensive bilateral defence relationship, the time has come to take it to the next level because "we can do much more together", said Admiral Fraser, after holding talks with Indian officials and experts here.

For starters, a UK liaison officer will "very soon" be posted to Indian Navy's Information Fusion Centre-IOR at Gurgaon, which takes feeds and inputs from multiple sources ranging from coastal radars to satellites and then fuses, correlates and analyses them to assess threats in the maritime domain. "The centre will enable engagement with partner nations, further development of

comprehensive maritime domain awareness and sharing of information on suspicious vessels,” said the top British officer.

With the UK now moving to fully operationalise its two new 65,000-tonne aircraft carriers, HMS Queen Elizabeth and HMS Prince of Wales, with the F-35 joint strike fighters landing on the former for the first time last week, Admiral Fraser said his country was also ready to offer technical expertise to India in building such big warships with electric propulsion.

“Our new aircraft carrier programme and technologies like engines, aviation, unmanned systems, solutions for combat air strategy and the like might be of interest to India as it considers its own new carrier projects,” he said.

This comes at a time when the Indian Navy, with an eye firmly on China, is taking up afresh its long-pending case for construction of a third aircraft carrier after deciding the 65,000-tonne warship will have electric propulsion instead of nuclear power to bring down the overall project cost to about Rs 45,000 crore, which will be spread over 10-12 years, as was first reported by TOI.

HMS Queen Elizabeth will undertake her first full operational deployment with her carrier strike group to the IOR through the Mediterranean in 2021. “An exciting option then would be an Indian aircraft carrier task group exercising with our task group in the bilateral ‘Konkan’ exercise in the IOR,” said Admiral Fraser.

“There are hugely complex challenges facing our nations and they are multiplying all the time. By working together as natural partners, through capability development, through the alignment of tactics and doctrine, through information sharing, and onwards into the delivery of operational effect, I firmly believe that our navies – and through them both nations -- will be all the stronger for it,” he added.

<https://timesofindia.indiatimes.com/india/uk-looks-to-ramp-up-maritime-security-tie-up-with-india/articleshow/71669410.cms>

**THE TIMES OF INDIA**

*Sun, 20 Oct 2019*

## **Harbour phase of Innex-19 starts**

Visakhapatnam: The opening ceremony of the second edition of the India-Myanmar naval exercise ‘Innex-19’ was held onboard INS Ranvijay at Visakhapatnam recently. Myanmar naval ships UMS Sin Phyu Shin (F-14) and UMS Tabinshweti (773) arrived at Visakhapatnam on Friday and interacted with Indian navy personnel in a bid to sharing expertise on various maritime issues.

On arrival, Capt Tet Lwin Tun, Fleet Cdr of the first fleet accompanied by Commandaer Sai Thet Naing, Commanding Officer UMS King Tapin Shwe Htee and Cdr Kyaw Thain Kha, CO UMS King Sin Phyu Shin called on Vice Admiral Atul Kumar Jain, commanding-in-chief of the ENC.

The harbour phase of Innex-19 is scheduled till October 20. The harbour phase will include visits to Indian naval units, and the training and maintenance facility at Visakhapatnam.

In the sea phase, scheduled from October 20-22, INS Ranvijay, a guided-missile destroyer and INS Kuthar, a missile corvette will be carrying out a joint exercise with Myanmar ships UMS Sin Phyu Shin, a frigate and UMS Tabinshweti, a corvette in the Bay of Bengal.

<https://timesofindia.indiatimes.com/city/visakhapatnam/harbour-phase-of-innex-19-starts/articleshow/71667884.cms>

Sat, 19 Oct 2019

## **‘India not prepared for cyber challenges’**

*By Akhil Kadidal*

Bangaluru: As the pace of digitisation in India has grown by 90% since 2014, the country’s vulnerability to cyberattacks has increased exponentially, according to experts in the government.

Sudhir Kamath, director general of the Defence Research and Development Organisation (DRDO), specified that cyberattacks can be considered as the fifth dimension of war, and warned that new technologies are adding more challenges to cybersecurity today heightened by AI, big data, machine learning and quantum technologies.

He was speaking at a three-day conference on the future of security and warfare organised by the Bengaluru-based think-tank Synergia.

Other cybersecurity experts at the conference brought this statement into perspective by pointing out India is the third greatest recipient of cyberattacks in the world. The scale of the problem is enough to hamper India’s growth, explained Lt General Rajesh Pant, the National Cyber Security Coordinator of India.

“Growing to a \$5 trillion economy, as our prime minister wants, translates to a growth rate of 8-9%. But if we are hit by cybercrimes, attaining that goal will become difficult,” Pant said, adding that India is staring at losses of Rs 2 lakh crore through cyberattacks.

Speaking to DH, Dr Kamath specified that DRDO was involved in the creation of hardware and software solutions to combat the increasing scale of cyberattacks but would not disclose particulars, citing the classified nature of these projects.

What Dr Kamath did elucidate about was that Indian society was completely unprepared or unaware of the scale of attacks being perpetrated against from foreign state actors and private entities.

One example of this was the Face App, developed by the Russian Company Wireless Lab, which prompts users to upload photos of themselves which are then used by an AI system to generate images showing them looking older or in another gender. However, concerns over data leaks from the company have triggered fears that the images are being for nefarious purposes in Russia.

“This is what people don’t realise — that the app that they download onto their phones might be sending their data to parties which could use them for illicit purposes,” Dr Kamath said.

Lt General Pant suggested that taking the message of cybersecurity vigilance to schools could help build the better-informed society of tomorrow.

He also suggested a sustained public interest campaign, similar to anti-tobacco films which run in theatres, to impress upon the public the gravity of the situation.

<https://www.deccanherald.com/city/life-in-bengaluru/india-not-prepared-for-cyber-challenges-769548.html>